

P **Rheum officinale**

Common Name(s)

Chinese Rhubarb

How Used

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	Chemical Plant Part	Low PPM	High PPM	StdDev	Reference	Citation
30	(+)-CATECHIN	Rhizome	--	3628.6	-1.0000000000000002	
30	(+)-CATECHIN	Plant	--	--		
38	(-)-EPICATECHIN	Rhizome	--	3437.5		
0	1,2,6-TRI-O-GALLOYL-GLUCOSE	Rhizome	--	365.7		
0	1,8,6-TRIHYDROXY-3-METHYLANTHRAQUINONE	Plant	--	--		
0	1,8-DIHYDROXY-3-CARBOXYANTHRAQUINONE	Root	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
0	1,8-DIHYDROXY-3-HYDROXYMETHYLANTHRAQUINONE	Root	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	1,8-DIHYDROXY-3-METHYLANTHRAQUINONE	Plant	--	--		
0	1,8-DIHYDROXY-6-METHOXY-3-METHYLANTHRAQUINONE	Root	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
0	1-O-GALLOYL-GLYCEROL	Plant	--	--		
0	3,3'-DI-O-GALLOYLPROCYANIDIN-B-2	Rhizome	--	1514.3		
0	3-O-GALLOYL-PROCYANIDIN-B-1	Rhizome	--	771.4		
0	6-O-GALLOYL-GLUCOSE	Plant	--	--		
24	ALOE-EMODIN	Root	--	--		
24	ALOE-EMODIN	Rhizome	--	--		
24	ALOE-EMODIN	Plant	--	--		
24	ALOE-EMODIN	Bulb	--	--		
0	ALOE-EMODIN-8-MONO-BETA-D-GLUCOSIDE	Root	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
0	ALOE-EMODIN-8-O-BETA-D-GLUCOPYRANOSIDE	Plant	--	--		
0	ANTHRACENES	Root	30000	50000	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
6	ANTHRAQUINONES		Rhizome	--	--	
6	ANTHRAQUINONES	Root	50000	50000	1.3513884921632264	
0	ANTHRONES	Root	--	--		
0	BETA-D-GLUCOGALLIN	Root	--	--		
102	CAFFEIC-ACID	Root	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	CALCIUM-OXALATE	Root	60000	60000	2.4399617861191483	
0	CATECHIN-TANNINS	Root	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	CHRYSAPHANOL	Root	--	--		
6	CHRYSOPHANIC-ACID	Root	--	--		
6	CHRYSOPHANIC-ACID	Bulb	--	--		
6	CHRYSOPHANIC-ACID	Rhizome	--	--		
10	CHRYSOPHANOL	Root	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	CHRYSOPHANOL-1-MONO-BETA-D-GLUCOSIDE	Root	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
0	CHRYSOPHANOL-1-O-BETA-D-GLUCOPYRANOSIDE	Plant	--	--		
0	CHRYSOPHANOL-8-O-BETA-D-GLUCOPYRANOSIDE	Plant	--	--		
18	CINNAMIC-ACID	Root	--	--	Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.	
4	D-CATECHIN	Root	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.	
0	D-CATECHOL	Root	--	--	Chemical Constituents of Oriental Herbs (3 diff. books)	
0	D-EPICATECHIN-GALLATE	Root	--	--	Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.	
0	DIISOBUTYL-PHTHALATE	Root	--	--	Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.	
58	EMODIN	Plant	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
58	EMODIN	Bulb	--	--		
58	EMODIN	Rhizome	--	--		
58	EMODIN	Root	3000	9000	1.2993201981258473	
0	EMODIN-1-MONO-BETA-D-GLUCOSIDE?	Root	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	EMODIN-6-MONOGLUCOSIDE	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	EMODIN-8-MONO-BETA-D-GLUCOSIDE?	Root	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	EMODIN-8-O-BETA-D-GLUCOPYRANOSIDE	Plant	--	--		
61	FERULIC-ACID	Root	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	FRANGULIC-ACID	Root	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
8	FRUCTOSE	Root	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
62	GALLIC-ACID	Rhizome	--	25.7		
62	GALLIC-ACID	Root	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	GALLIC-ACID-3-O-BETA-D-(6'-O-GALLOYL)-GLUCOPYRANOSIDE	Plant	--	--		
0	GALLIC-ACID-4-O-BETA-D-(6'-O-GALLOYL)-GLUCOPYRANOSIDE	Plant	--	--		
0	GLUCOGALLIN	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
7	GLUCOSE	Root	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	ISOLINDLEYIN	Plant	--	--		
3	LINDLEYIN	Rhizome	--	1345.7		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
18	OLEIC-ACID	Root	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
9	OXALIC-ACID	Rhizome	--	--		
0	PALMIDIC-B	Plant	--	--		Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
0	PALMIDIN-C	Plant	--	--		Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
13	PALMITIC-ACID	Root	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	PARIETIN	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
24	PECTIN	Root	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
1	PHENYL-PROPIONIC-ACID	Root	--	--	Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.	
5	PHYSCION	Root	--	--		
5	PHYSCION	Bulb	--	--		
5	PHYSCION	Rhizome	--	--		
0	PHYSCION-1-MONO-BETA-D-GLUCOSIDE?	Root	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
0	PHYSCION-8-MONO-BETA-D-GLUCOSIDE?	Root	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
0	PHYSCION-8-O-BETA-D-GENTIOBIOSIDE	Root	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
2	PHYTOSTEROLS	Root	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
8	PICEATANNOL	Plant	--	--		
0	PICEATANNOL-4'-O-(6''-O-GALLOYL)-BETA-D-GLUCOPYRANOSIDE	Plant	--	8333.3		
0	PICEATANNOL-4'-O-BETA-D-GLUCOPYRANOSIDE	Plant	--	33333.3		
0	REIDIN-C	Plant	--	--	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.	
0	RESIN	Root	--	--	Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.	
0	RESVERATROL-4'-O-(6''-O-GALLOYL)-BETA-D-GLUCOPYRANOSIDE	Plant	--	--		
0	RESVERATROL-4'-O-BETA-D-GLUCOPYRANOSIDE	Plant	--	--		
0	RHAMNOXANTHIN	Root	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
1	RHAPONTICIN	Root	--	--		

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0	RHATANNIN	Root	--	--		
0	RHATANNIN	Rhizome	--	28571.4		
18	RHEIN	Root	--	27	-1	
18	RHEIN	Plant	--	--		
18	RHEIN	Rhizome	--	--		
0	RHEIN-8-MONOGLUCOSIDE	Root	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
0	RHEINOSIDE-A	Rhizome	--	19971.8		
0	RHEINOSIDE-A	Root	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.	
0	RHEINOSIDE-B	Rhizome	--	5126.8		
0	RHEINOSIDE-B	Root	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.	
0	RHEINOSIDE-C	Rhizome	--	3718.3		
0	RHEINOSIDE-C	Root	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	RHEINOSIDE-D		Rhizome --	6422.5		
0	RHEINOSIDE-D		Root --	--	Leung, A. Y. and Foster, S. 1995.	Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	RHEINOSIDES		Root 12900	12900		
0	RHEUM-EMODIN		Root --	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
87	RUTIN		Plant --	13000 -0.48658427928331677		
87	RUTIN		Root --	--	Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.	
0	SENNIDIN-C		Plant --	--	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.	
1	SENNOSIDE-A		Plant --	--		
0	SENNOSIDES-A		Root --	--	Leung, A. Y. and Foster, S. 1995.	Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	SENNOSIDES-A		Rhizome	--		
0	SENNOSIDES-B		Rhizome	--		
0	SENNOSIDES-B	Root	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.	
0	SENNOSIDES-C	Root	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.	
0	SENNOSIDES-D	Root	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.	
0	SENNOSIDES-E	Root	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.	
0	SENNOSIDES-F	Root	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.	
5	STARCH	Root	150000	160000	-0.6514767798388345	
0	STILBENE-GLYCOSIDES	Plant	--	--	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	VEROSTEROL?	Root	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	